

Structures



Structures

TYPES OF KITS



Built-Ups

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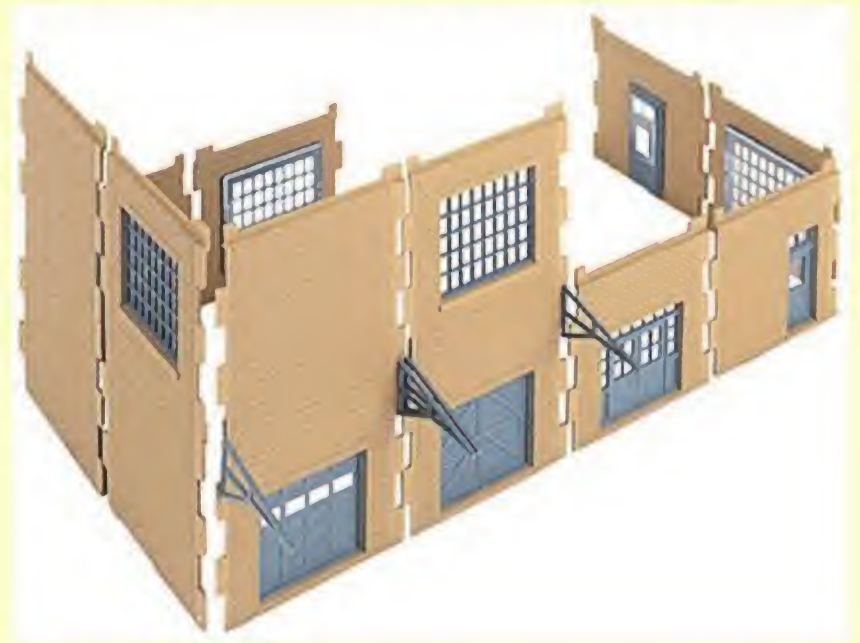
TYPES OF KITS



Styrene (plastic) Kit

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Modular Buildings

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Resin Cast

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Plaster Cast

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Cardstock and Wood

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Craftsman Wood

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Background Flats

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TYPES OF KITS



Background Reliefs

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TYPES OF KITS



Background Buildings

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TYPES OF KITS



Background Buildings

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Background Buildings

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KITBASHING



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SCRATCH BUILT



Scratch Built Styrene following blueprints of Denver's Union Station

Used "selective compression"

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SCRATCH BUILT



Scratch Built Wood using home drawn plans & Board-by-Board construction

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DON'T FORGET



Trestles and Bridges are structures also and play an important role on the railroad

How about all those small support buildings



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MOCK UPS



Made from foam core, painted, and computer drawn windows cut out and glued on

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BASIC TOOLS

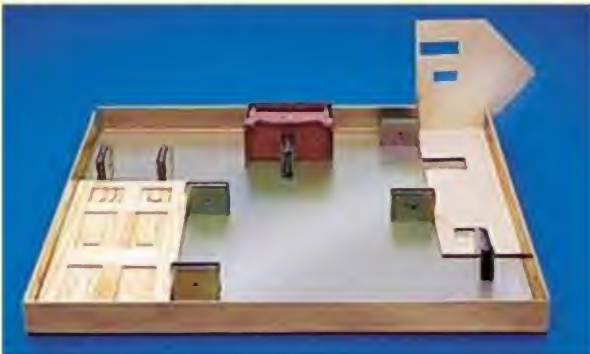


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ADVANCED TOOLS



Pounce Wheel



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STRUCTURE LIGHTING



Interior Lights

Notice that not
all rooms are lit

Exterior Lights

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STRUCTURE LIGHTING

Exterior light bulb

- Grain of Rice
- With lamp shade
- 12-14 Volt

Special Use light bulb

- Axial leads
- 1.5 Volt



Bright White LEDs

- 5mm
- 3mm

Interior light bulb

- Grain of Rice
- 12-14 Volt

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STRUCTURE LIGHTING



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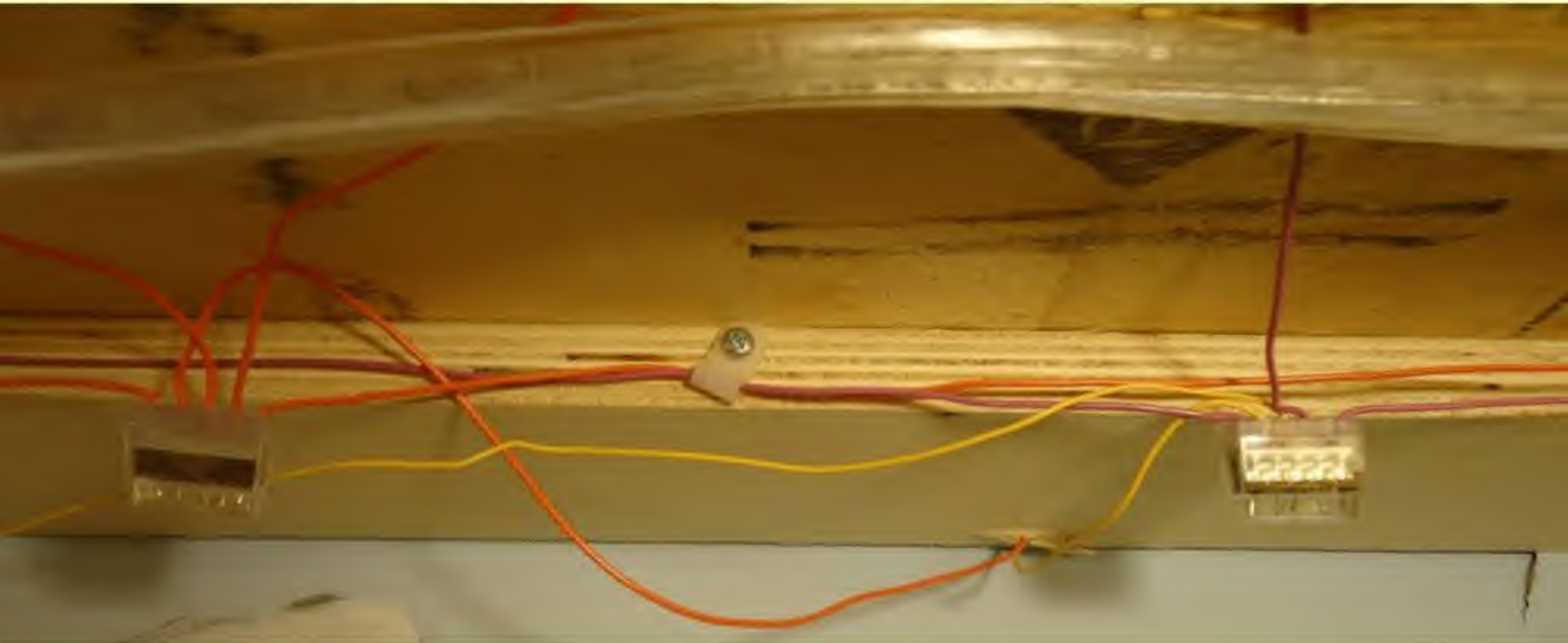
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STRUCTURE LIGHTING



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Bus Wiring

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Master On/Off Switch

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Other lighting considerations

View blocks

Varying the light intensities

Preplanning

AC or DC

Transformers / wall-warts

Convert AC to DC

Lighting effects

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SETTING THE STRUCTURE

Important things to think about when setting your structure on your layout

- Do your research,
 - What kind of building is it?
 - Industrial
 - Farming
 - Downtown
- What kind of Architecture is it?
 - Building found in Texas looks far different than one found in the northeast area of the United States
- What era is it?
 - Home Depot did not exist during the 50's
- Does the location make sense?
 - Urban buildings in a urban setting
 - Rural buildings in a rural setting
- Does the structure and vignette tell a story?
 - What are you trying to tell the person viewing the scene?

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THE DOROTHY AFFECT

Make sure your structure is "planted into the scenery" not placed on top



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DETAILS, DETAILS, DETAILS

Rule of thumb is 50% of your build time will be on the structure, the other 50% will be on details.
Details can tell your story more than the structure itself.



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FULL INTERIORS

One thing to consider is whether or not you will have a cutaway wall section or removable roof to expose full interior details.



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PARTIAL INTERIORS



Blinds or curtains
can be added

Another thing to consider is what is visible from the "street" and only focus on that.

Paper placed
so that light will
not show completely
through the building



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SOUND AND ANIMATION



Although this is cool,
it is really not animation we are talking about...

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TREES, SHRUBS, GRASS, BUSHES



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PAINTING & WEATHERING



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PAINING & WEATHERING

What is weathering or why should I bother?

It's the attention to detail that changes a railroad
from a toy to a scale model.

It's what makes our railroads look real.

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What should I weather? All of it!

Our philosophy on this is basic. If you want your model to look real then it needs to look like it's been outside. We live in a dirty world and our models need to reflect that.

What does the car haul? Can it be spilled? Where does it haul it? All of these things effect the look of our models.

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All kinds of things coat, cover, stick to, land on and are spilled on rolling stock.

These cause the 5 Keys to good weathering:

Grease, Grime, Rust, Dust & Mud.

We'll discuss philosophy off and on throughout this clinic.

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Lighting

The 3 most important considerations in weathering are: LIGHTING, LIGHTING and LIGHTING!

Always weather under the same "type" of light that is or will be in your train room.

The impacts of weathering will look different under different types of light.

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Pastels & Chalks - Available in a rainbow of colors, grind into powder to apply. Apply more than you think you need because most will blow off when sealing.

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Bragdon Weathering Powders- Somewhat limited colors but most needed are available. High quality, self sticking - does not blow off easily when sealing. In fact, the harder you rub them on the better it sticks.

Colored Pencils - Prismacolor colored pencils are nice for a board by board weathering effect.

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Dirt

When possible, obtain dirt from the region you model. For cars, just dip in and cover with dirt and seal. For structures, determine if you are looking for an overall dusting or specifics such as rain splatter at the base of a building.

Rust

- ∴ **Rustall** or the *Micro Mark Rust & Dust*.
Easily available - various colors - good rusty effect.
- ∴ **Sophisticated Finishes Rust Antiquing Set**
Available at Michaels - 2 parts - extremely effective because it really is rust.

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WARNING: ALWAYS do this outdoors. The etchant will pop and splatter while the part 'cooks'. This creates a mess as well as a bad odor.

Acid etching - metal Use Radio Shack etchant or muratic acid from a swimming pool supply.

- Use plastic tweezers to hold the metal siding sheets
- Dip into a glass or plastic container of etchant or acid
- Hold in the etchant until you see some smoke coming off the surface
- When the metal has aged to your satisfaction remove from etchant
- Dip into some water mixed with baking soda to neutralize the acid or etchant
- Rinse with clear water
- Allow to dry then glue to the structure
- Seal the metal with Dull Coat or it will oxidize over time.

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Stains

.: **India Ink and alcohol**-Probably the most widely used stain. Available in various colors. I use black, white and brown. Mix various strengths ranging from 1 to 2 tsp per pint for black 3 or more tsp for brown or white

.: **Artists Oil Paints**-Multitude of colors. Thin with mineral spirits to make a "wash" and apply. Very effective for streaking of stains.

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Spray Paints - Useful to apply grime, dust etc.

Dull Coat - Used to conceal decal film, seal chalks and other weathering techniques - will "fog" clear plastic.

Scratching - Done with a fiberglass or metal brush. Requires several paint coats with scratching between coats. Starting with a wood color you build up layers of color and scratch between each coat. This offers a varied look of peeling paint.

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Paint - I like regular Floquil. Acrylics don't cover too well yet but they great for washes.

Thinner - I use Lacquer Thinner. You can buy it by the gallon. It is much cheaper and works as good as Dio-sol. For Acrylics, use Distilled water. The additives in tap water can effect the color of the paint. When airbrushing acrylics we like to use rubbing alcohol since it flashes off faster than water and thus isn't as prone to run.

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Mother Nature's Effects.

Rain will cause several stains to any building. It will cause stains where the rain runs down the roof and walls. It will also cause a dirty/muddy stain around the base of most buildings (Unless surrounded by concrete).

Any exposed metal will have rust.

You can't go wrong with Dust and Grime. Both will age any structure and should be misted over the entire structure unless you are trying to achieve a special effect.

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PAINTING & WEATHERING

The black stain, again, for the details.

Use the dry brush technique or an airbrush to fade and weather signs.

Man's Effects.

Soot stains should be added to buildings that are close to the tracks.

Any structure that is used for loading, unloading or manufacturing of a liquid will have spill stains.

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The alcohol stain is wonderful for making water stains on any surface. I use the light stain for the general weathering and for details. For water stains, I like to use the darker stain. If the stain is a little too dark you can dry brush over the stain with the same color as the wall.

For the dirt around the base of the building you can use the real dirt or chalks. Start at the bottom of the building and pull the chalk up the side. You don't want to go very high. Remember, this is representing dirt that has been kicked up by rain. It shouldn't go much over 2 - 2 1/2 scale feet. Rust any exposed metal.

On older buildings use a general misted top coat of grime and or dust. This will add age to the building and give it character.

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On buildings with a painted surface you can make the paint look like it is peeling. There are several methods to doing this. My personal favorite is the dry brush. If you are working on a house and you want it to look old, the walls first need to be painted a light gray color. Then dry brush the paint color over the gray. The gray will look like the wood has been exposed to the elements. Follow that with the stain and you have it.

You can also do a peeled paint effect using a product called 'Aged Wood Crackling Medium' from Deco Art. Paint on a coat of this before the final color coat and it will crack and peel as it dries.

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A little logic goes a long way. Pay attention to how it looks in real life and model what you feel is necessary to make the model come to life in your mind.

Always remember...it's YOUR railroad. If somebody else doesn't like it...too bad.

Most importantly, we do this to have fun. Don't let it get to you.

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QUESTIONS?